

Ministry of the Environment
and Climate Change

Ministère de l'Environnement et
de l'Action en matière de
changement climatique



Safe Drinking Water
Branch

Direction du contrôle la qualité de
l'eau potable

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July 16, 2015

Township of Wellington North
7490 Sideroad 7W, P.O. Box 125
Kenilworth, ON
N0G 2E0

Attention: Mr. Matthew Aston
Director of Public Works

RE: 2015-16 Inspection Report for the Mount Forest Wastewater Treatment Plant

Dear Mr. Aston,

I would like to thank you and the team at the Ontario Clean Water Agency for your assistance during my inspection of the Mount Forest Wastewater Treatment Plant (# 120001381). Attached is the final report for this inspection, with report number 1-C2987.

Feel free to contact me at (519) 826-4274 if you have any questions related to this inspection.

Best regards,

A handwritten signature in black ink, appearing to read "Martha Weber", with a long horizontal flourish extending to the right.

Martha Weber
Provincial Officer
Water Inspection Program
Guelph District Office

Cc via email: Scott Craggs, West Highlands Hub, OCWA
Lisa Benoit, West Highlands Hub, OCWA
Erik Downing, Saugeen Valley Conservation Authority
District Office File (SI WE WN CO 441)



Ministry of the Environment and Climate Change

**WW MOUNT FOREST WPCP
Inspection Report**

Site Number:	120001381
Inspection Number:	1-C2987
Date of Inspection:	Jun 01, 2015
Inspected By:	Martha Weber

**Mount Forest Wastewater Treatment Plant
WW# 120001381
2015/16 Inspection Report**

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OWNER INFORMATION:

Company Name: WELLINGTON NORTH, TOWNSHIP OF
Street Number: 7490 **Unit Identifier:**
Street Name: SIDEROAD 7 W
City: KENILWORTH
Province: ON **Postal Code:** N0G 2E0

CONTACT INFORMATION

Type: Owner **Name:** Matthew Aston
Phone: (519) 848-3620 x31 **Fax:**
Email: maston@wellington-north.com
Title: Director of Public Works

Type: Operating Authority **Name:** Scott Craggs
Phone: (519) 941-1938 **Fax:** (519) 941-1794
Email: scraggs@ocwa.com
Title: West Highlands Hub Manager

Type: Operating Authority **Name:** Lisa Benoit
Phone: (519) 941-1938 x225 **Fax:** (519) 941-1794
Email: lbenoit@ocwa.com
Title: Process & Compliance Technician

INSPECTION DETAILS:

Site Name: WW MOUNT FOREST WPCP
Site Address: 651 CORK ST WELLINGTON NORTH ON N0G 2E0
County/District: Wellington North
MOECC District/Area Office: Guelph District
Health Unit: WELLINGTON-DUFFERIN-GUELPH HEALTH UNIT
Conservation Authority: Saugeen Conservation
MNR Office: N/A
Site Number: 120001381
Inspection Type: Announced
Inspection Number: 1-C2987
Date of Inspection: Jun 01, 2015
Date of Previous Inspection: Jun 16, 2011

COMPONENTS DESCRIPTION

Site (Name): Mount Forest WPCP
Type: Plant Classification **Sub Type:** Class II

Comments:

Classification Certificate # 5204 was issued on September 7, 2007, for a Class 2 facility for the Mount Forest Water Pollution Control Plant. Classification Certificate #459 has been issued for the Mount Forest Collection System as a Class 2 system.

This facility consists of a new plant at 651 Cork St., an older plant at 400 North Water St., which is now used as a raw sewage pumping station, along with other pumping stations within the community.

Site (Name): Mount Forest WPCP**Type:** Sewage Collection System**Sub Type:** Nominally separated sewers**Comments:**

The collection system was designed to convey sanitary sewage to the treatment plant through separate pipes from the storm sewer system.

Site (Name): Mount Forest WPCP**Type:** Collection System Component**Sub Type:** Pumphouse**Comments:**

There are 4 sewage pumping stations serving Mount Forest:

1. North Water Street Sewage Pumping Station:

The old plant at 400 North Water Street now serves as the main raw sewage pumping station, providing a firm capacity of 173.6 L/s peak flow. There are two raw sewage pumps with a capacity of 173.6 L/s at 44.2 m TDH and one raw sewage pump with a capacity of 60 L/s at 17.7 m TDH. A 16,000 L volume surge vessel is in place, as well as a flow metering chamber. Approximately 1,300 m of 300 mm diameter and 25 m of 250 mm diameter forcemain lead from this pumping station to the Influent Works building at 651 Cork Street.

To buffer peak flow, four equalization tanks were created at the old 400 North Water St. plant by modifying aeration tanks and secondary clarifiers. Two of the equalization tanks are each approximately 395 m³ in volume, each equipped with a submersible pump rated at 40 L/s at 3.3 m TDH. The other two equalization tanks each have an approximate volume of 249 m³, each equipped with two centrifugal pumps rated at 28.4 L/s each at 7.6 m TDH.

2. Cork St. Sewage Pumping Station:

This station is located at Cork St. near the intersection with Waterloo St. There is a 175 kW diesel generator set, an alarm system, and two sewage pumps that direct sewage to a forcemain leading to the North Water St. station. The overflow provision is to lead to the adjacent ditch, which then leads to the river.

3. Durham St. Sewage Pumping Station:

This station is located at Durham St. W., close to the intersection with Foster St. There is a 90 kW diesel generator set, an alarm system, and three sewage pumps that direct sewage to a forcemain leading to the North Water St. station. If there was an overflow at this station, it would go over the manhole cover and onto Durham St.

4. Perth St. Sewage Pumping Station:

This station does not have backup power. Two sewage pumps are located in a manhole in Perth St. Overflow is via the manhole towards the nearby drainage ditch.

Site (Name): Mount Forest WPCP**Type:** Mechanical Sewage Treatment**Sub Type:** Pre-treatment

Comments:

Pre-treatment equipment at the Influent Works building includes a vertical bar screen, washer screw compactor, circular grit chamber complete with grit extraction equipment and blowers, and a grit dewatering screw all sized to accommodate the hydraulic peak flow rate of 15,000 m³/d together with connection of the sewage forcemain to the Influent Works building. There are two positive displacement blowers, each rated at 33.3 L/s, as well as a septage receiving hopper complete with a submersible sewage pump with a rated capacity of 22 L/s at 7.8 m TDH. A Parshall flume with an ultrasonic level detector is in place to measure influent flow.

Site (Name): Mount Forest WPCP**Type:** Mechanical Sewage Treatment **Sub Type:** Secondary Treatment**Comments:**

For continuing treatment at the Influent Works building, there are two aeration tanks, each measuring approximately 19.0 m (L) x 18.1 m (W) x 5.03 m (SWD) with three cells per tank (complete with division walls), providing a total volume of 1,730 m³ per tank. Each tank is equipped with a fine pore air diffusion system consisting of header piping and diffuser grids. The aeration blowers consist of two duty blowers, each rated at 300 L/s at 58 kPa and one standby blower rated at 600 L/s at 58 kPa.

There are two secondary clarifiers, each measuring approximately 18.0 m (L) x 18.0 m (W) x 4.32 m (SWD) and each is equipped with a circular clarifier mechanism, bridge-mount, and centre inlet. Alum is dosed prior to these secondary clarifiers. The alum storage facility contains a 30,000 L alum storage tank with access cover and fill connection, overflow and level indicator, and two chemical metering pumps each with a minimum rated capacity of 17 L/hr and one chemical metering pump with a minimum rated capacity of 7.6 L/hr.

For Return Activated Sludge (RAS) pumping, there are three RAS pumps, two duty and one standby, each pump rated at 40.5 L/s at 8.5 m TDH and two magnetic flowmeters (one for each return line).

For Waste Activated Sludge (WAS) pumping, there are two WAS pumps, each rated at 8.8 L/s at 3.1 m TDH, and one magnetic flow meter to measure WAS and scum discharge to the sludge digestion facility. Two scum pumps are each rated at 8.8 L/s at 5.7 TDH.

Site (Name): Mount Forest WPCP**Type:** Mechanical Sewage Treatment **Sub Type:** Tertiary Treatment**Comments:**

Two low head single media effluent filters, each having an area of approximately 47.2 m², with approximate dimensions of 12.4 m (L) x 3.81 m (W), complete with travelling backwash mechanism and return of backwash to head of aeration tanks utilizing a filter waste pump rated at 66.7 L/s at 14 m TDH.

Site (Name): Mount Forest WPCP**Type:** Method of Disinfection **Sub Type:** Ultraviolet**Comments:**

Effluent disinfection is achieved via a UV disinfection system equipped with two banks (1 duty and 1 standby), each bank sized for the Peak Flow Rate of 15,000 m³/d.

When necessary, bypass disinfection is achieved via a manual sodium hypochlorite drip into the existing chlorine contact chamber measuring approximately 7.72 m x 3.35 m x 2.90 m SWD, for the chlorination of bypass sewage at the raw sewage pumping station at the old plant (400 North Water St.).

Site (Name): Mount Forest WPCP

Type: Effluent Discharge Receiver

Sub Type: Surface Water

Comments:

Final effluent is discharged to the South Saugeen River via approximately four metres of 600 mm diameter and 34.7 m of 450 mm diameter pipe.

Any bypassed effluent is discharged via approximately 11.5 m of 350 mm diameter pipe from the chlorine contact chamber to the sewer outfall into the South Saugeen River.

Site (Name): Mount Forest WPCP

Type: Effluent Discharge Frequency

Sub Type: Continuous

Comments:

Not Applicable

Site (Name): Mount Forest WPCP

Type: Biosolids Stabilization Process

Sub Type: Aerobic Digestion

Comments:

Located at 651 Cork St., the sludge digestion and storage facility is equipped to receive, digest, and store sludge from the Arthur and Mount Forest Wastewater Treatment Plants. There are five aerated digestion/storage tanks: two tanks each have a volume of 320 m³ with approximate dimensions of 9.3 m (L) x 5.5 m (W) x 6.25 m (SWD) and are equipped with one submersible mixer per tank. Two more tanks each have a volume of 662 m³ with approximate dimensions of 27.4 m (L) x 11.6 m (W) x 6.25 m (SWD), each equipped with one submersible mixer. The fifth tank has a volume of 1987 m³ with approximate dimensions of 27.4 m (L) x 11.6 m (W) x 6.25 m (SWD) and is equipped with two submersible mixers. The remaining equipment at this facility consists of two sludge transfer pumps, each rated at 34.7 L/s at 13.5 m TDH, two supernatant pumps, each rated at 10 L/s at 6.0 m TDH, and two aeration blowers, each rated at 330 L/s at 65 kPa.

Site (Name): Mount Forest WPCP

Type: Biosolids Storage Method

Sub Type: On-Site Storage Capacity

Comments:

The total sludge storage volume in the holding tanks is 3,951 m³, with a retention time of 3-4 months.

Site (Name): Mount Forest WPCP

Type: Biosolids Disposal Method

Sub Type: Land application

Comments:

Stabilized sludge is land applied to certified agricultural sites by an approved waste hauling company.

Site (Name): Mount Forest WPCP

Type: Stand-by Power Generation

Sub Type: STP Generator

Comments:

Located at the Administration Building, there is a 500 KW emergency diesel generator and one raw sewage pump rated at 10 L/s at 7.1 m TDH.

At the 400 North Water Street location, there is a 450 kW emergency diesel generator.

INSPECTION SUMMARY

INTRODUCTION

- * **The primary focus of this inspection is to confirm compliance with Ministry of the Environment and Climate Change (MOECC) legislation as well as evaluating conformance with ministry policies and guidelines during the inspection period.**

This wastewater treatment and collection system is subject to the legislative requirements of the Ontario Water Resources Act (OWRA) and the Environmental Protection Act (EPA) and regulations made therein. This inspection has been conducted pursuant to Section 15 of the OWRA and Section 156 of the EPA.

This inspection report does not suggest that all applicable legislation and regulations were evaluated. It remains the responsibility of the owner to ensure compliance with all applicable legislative and regulatory requirements.

This system is owned by the Township of Wellington North and operated by the Ontario Clean Water Agency (OCWA). The review period for this inspection is from July 1, 2011 to April 30, 2015. The main treatment facility, along with the four pumping stations were included in this inspection.

AUTHORIZING/CONTROL DOCUMENTS

- * **The owner had a valid Environmental Compliance Approval for the sewage works.**

Certificate of Approval (CofA) #6134-73FHHU, issued on June 19, 2007, is the compliance approval for the main sewage treatment facility at 651 Cork St. and the main raw sewage pumping station at 400 North Water St.

The Cork St. Sewage Pumping Station is approved via CofA #2342-82GPAM, issued February 11, 2010. The generator for this sewage pumping station is approved via Air CofA #7301-7YTKGL, issued December 18, 2009.

The Durham St. Sewage Pumping Station is approved via CofA #1899-873P7E, issued July 23, 2010. The generator for this sewage pumping station is approved via Air CofA #4114-86YH5W, issued August 25, 2010.

The Perth St. Sewage Pumping Station is approved via CofA #3-1843-98-006, issued in 1999. There is no generator associated with this station.

CAPACITY ASSESSMENT

- * **The annual average daily flow was approaching the rated capacity of the sewage works.**

Currently, the rated capacity for this facility is listed as 2,818 m³/day. Detailed below is a summary by year of the percentage of rated capacity. It is noted that in 2011, the average daily flow exceeded 80% of the rated capacity, and the other years in the inspection review period were approaching the 80% mark.

YEAR	AVG DAILY FLOW	PERCENTAGE OF RATED CAPACITY
2014	2,071 m ³ /d	73.5 %
2013	2,235 m ³ /d	79.3 %
2012	2,109 m ³ /d	74.8 %
2011	2,363 m ³ /d	83.9 %

CAPACITY ASSESSMENT

Steps have been taken to reduce the average daily flow to the plant, including addressing some inflow and infiltration areas of improvement, and proactively replacing existing infrastructure during street construction work.

The CofA describes actions to take to work towards re-rating the plant to a maximum of 3,500 m³/day. Sampling has been initiated per CofA suggestions to build a history of data to use towards this re-rating option.

- * **The owner was in conformance with the designed rated capacity for average daily flow into the sewage works.**

As described above, the average daily flow was within the current designed rated capacity of 2,818 m³/day for all years in the inspection review period.

- * **The owner of the sewage works had prepared a written statement certified by a Professional Engineer confirming that the proposed works were constructed in accordance with the Environmental Compliance Approval.**

A letter dated December 2, 2008, confirms the facilities at 651 Cork Street and 400 North Water Street were constructed in general conformance with the Certificate of Approval.

- * **Flow measuring devices were installed, calibrated and maintained in accordance with the requirements of the Environmental Compliance Approval.**

Condition 9(7) of the Certificate of Approval requires the installation and maintenance of a continuous flow measuring device to measure the effluent flowrate, with an accuracy to within plus or minus 15 percent of the actual flowrate. The effluent flow measuring device (Parshall flume with ultrasonic level detector) has been verified for accuracy on an annual schedule during the inspection review period.

- * **Flow rates were recorded at a frequency prescribed by the Environmental Compliance Approval.**

Condition 9(7) of the Certificate of Approval requires the effluent flowrate be recorded at a daily frequency. Records provided during the inspection showed that the flows were recorded as required.

TREATMENT PROCESSES

- * **The owner had ensured that all equipment was installed in accordance with the Environmental Compliance Approval.**
- * **The works, related equipment and appurtenances were being operated and maintained to achieve compliance prescribed by the Environmental Compliance Approval.**
- * **The operator-in-charge had ensured that all equipment used in the processes was monitored, maintained, inspected, tested and evaluated.**
- * **The owner/operating authority was able to demonstrate that best efforts were used to achieve the objectives listed in the Environmental Compliance Approval conditions.**
- * **The sewage works effluent was essentially free of foreign substances on the day of the inspection.**

EFFLUENT QUALITY AND QUANTITY

EFFLUENT QUALITY AND QUANTITY

- * **The sewage works effluent limits were prescribed by the Environmental Compliance Approval.**

In the CofA, Section 7, Effluent Limits, prescribes limits in Table 2 as follows:

EFFLUENT PARAMETER	CONCENTRATION LIMIT	LOADING LIMIT
CBOD5	12.5 mg/L	35 kg/d
Total Suspended Solids	12.5 mg/L	35 kg/d
Total Ammonia Nitrogen	Dec 1 - Apr 30 6.0 mg/L	17.0 kg/d
Total Ammonia Nitrogen	May 1 - Nov 30 2.5 mg/L	7.0 kg/d
Total Phosphorus	0.37 mg/L	1.05 kg/d
Free Chlorine Residual	0.02 mg/L	-
E. coli	200 counts/100 mL (monthly Geometric Mean Density)	

pH of the effluent to be maintained between 6.0 - 9.0, inclusive.

- * **The sewage works effluent sample results demonstrated compliance with BOD5 or CBOD5 limits prescribed by the Environmental Compliance Approval.**

Monthly average concentrations for CBOD5 were within the compliance limit of 12.5 mg/L and monthly loadings were within the limit of 35 kg/day.

- * **The sewage works effluent sample results demonstrated compliance with total suspended solids limits prescribed by the Environmental Compliance Approval.**

Monthly average concentrations for total suspended solids were within the compliance limit of 12.5 mg/L and monthly loadings were within the limit of 35 kg/day.

- * **The sewage works effluent sample results demonstrated compliance with total phosphorous limits prescribed by the Environmental Compliance Approval.**

Monthly average concentrations for total phosphorus were within the compliance limit of 0.37 mg/L and monthly loadings were within the limit of 1.05 kg/day.

- * **The sewage works effluent sample results demonstrated compliance with total ammonia/total ammonia nitrogen/ionized ammonia limits prescribed by the Environmental Compliance Approval.**

Monthly average concentrations for total ammonia nitrogen were within the compliance limits of 6.0 mg/L (December 1 - April 30) and 2.5 mg/L (May 1 - November 30). Monthly loadings were within the limits of 17.0 kg/day (December 1 - April 30) and 7.0 kg/day (May 1 - November 30).

- * **The sewage works effluent sample results demonstrated compliance with microbiological parameter limits prescribed by the Environmental Compliance Approval.**

E.coli levels were within the compliance limit of 200 counts/100 mL, expressed as a monthly Geometric Mean Density.

- * **The sewage works effluent sample results demonstrated compliance with additional limits prescribed by Environmental Compliance Approval.**

Effluent pH was maintained between the compliance range of 6.0 and 9.0.

EFFLUENT QUALITY AND QUANTITY

- * **The sewage works effluent sample results did not meet the effluent objectives stated in the Environmental Compliance Approval.**

Effluent Objectives are prescribed in Section 6, Table 1 of the CofA as follows:

EFFLUENT PARAMETER	CONCENTRATION OBJECTIVE	LOADING OBJECTIVE
CBOD5	6.0 mg/L	17.0 kg/d
Total Suspended Solids	10.0 mg/L	28.2 kg/d
Total Ammonia Nitrogen	Dec 1 - Apr 30 4.0 mg/L	17.0 kg/d
Total Ammonia Nitrogen	May 1 - Nov 30 1.5 mg/L	11.3 kg/d
Total Phosphorus	0.3 mg/L	0.85 kg/d
Free Chlorine Residual	0 mg/L	-
E. coli	100 counts/100 mL (monthly Geometric Mean Density)	

Best efforts to be used for pH of the effluent to be maintained between 6.5 - 8.5, inclusive.

For April 2012, the E.coli monthly Geometric Mean Density was 136 counts/100 mL, which is above the objective of 100 counts/100 mL. The objective was met for every other month of the inspection review period, and is not considered to be an ongoing issue. As such, no recommendations are suggested at this time.

- * **The inspector collected audit samples during the inspection.**

Audit sampling of the treated effluent occurred on June 1, 2015. The analytical results of the audit sampling was not available at the time of issuance of this inspection report. The results will be provided to the system owner and operating authority upon their availability.

MONITORING REQUIREMENTS

- * **The sampling requirements were prescribed by the Environmental Compliance Approval.**

CofA Condition 9, Monitoring and Recording, prescribes sampling requirements for this facility as follows:

INFLUENT MONITORING

Parameter	Sample Type	Frequency
BOD5	24-hr composite	Weekly
Total Suspended Solids	24-hr composite	Weekly
Total Phosphorus	24-hr composite	Weekly
Total Kjeldahl Nitrogen	24-hr composite	Weekly

EFFLUENT MONITORING

(Sampling point immediately after UV disinfection)

Parameters	Sample Type	Frequency
CBOD5	24-hr composite	Weekly
Total Suspended Solids	24-hr composite	Weekly
Total Phosphorus	24-hr composite	Weekly
Total Ammonia Nitrogen	24-hr composite	Weekly

MONITORING REQUIREMENTS

Nitrate Nitrogen	24-hr composite	Weekly
E.coli	Grab	Weekly
pH	Grab (on-site)	Weekly
Temperature	Grab (on-site)	Weekly

Section 11 of the CofA also includes a list of sampling locations and parameters to be used for data collection to support future re-rating of the plant. Township representatives have advised that this sampling program has been initiated by a consultant.

- * **All sewage works effluent sampling requirements prescribed by the Environmental Compliance Approval were met.**

- * **All sewage works influent (raw sewage) sampling requirements prescribed by the Environmental Compliance Approval were met.**

- * **The owner had maintained the monitoring records for the period prescribed by the Environmental Compliance Approval.**

Condition 9(8) of the CofA requires a three year retention period; records were found to be retained as required.

- * **The owner had maintained the monitoring records since the date of the last inspection.**

REPORTING REQUIREMENTS

- * **The reporting requirements were prescribed by an Environmental Compliance Approval.**

Condition 10 of the CofA outlines reporting requirements for this system, as follows:

- Ten days prior to the date of a planned by-pass and as soon as possible for an unplanned by-pass, written notification is required to the Safe Drinking Water Branch Supervisor.
- Effluent limit exceedances are to be reported to the Safe Drinking Water Branch Supervisor orally as soon as reasonably possible, and in writing within seven days after receipt of laboratory results.
- Reportable spills as per O.Reg. 675/98 are to be reported within ten business via a detailed written report to the Safe Drinking Water Branch Supervisor.
- Annual Performance Reports are to be submitted to the Safe Drinking Water Branch Supervisor by March 31 every year, and are to include the information outlined in Condition 10(5) of the CofA.

Condition 11 outlined the requirement for a Receiver Impact Assessment, to be submitted to the Safe Drinking Water Branch Supervisor and the Regional Compliance Manager, with respect to applying for re-rating the plant to 3,500 m³/day. This assessment report is not yet due for submission, however it is noted that the supporting sampling program has been initiated.

- * **All annual performance reports did not meet the submission and contents requirements of the Environmental Compliance Approval.**

The Annual Reports were found to contain the majority of the information required by Condition 10(5) of the CofA, however there were the following exceptions:

- An objective exceedance for E.coli that occurred in April 2012 was not properly identified within the report, as the section on effluent quality included a statement that all objectives were met during the year.

REPORTING REQUIREMENTS

- Loading information was not included in the reports for 2011, 2012, and 2013 as required. It is noted that loading information was included in the 2014 Annual Report, as part of ongoing improvements to the Annual Reports issued by OCWA.
- The pH objective range of 6.5 - 8.5 was not identified within the report.
- An outline of anticipated volumes of sludge to be generated in the next reporting period was not included.

REQUIRED ACTIONS: The owner of the system is required to ensure that future Annual Reports comply with the requirements of Section 10(5) of the CofA. The following points specifically identify certain areas for improvement:

- All objective exceedances must be clearly identified within the report.
 - The pH objective range of 6.5 - 8.5 shall be included in the report, along with the identification of pH values measured during the reporting period to sufficiently compare to the objectives and limits for this parameter, as compliance/conformance with pH limits/objectives is based on grab sample results rather than monthly averages.
 - An outline of anticipated volumes of sludge to be generated in the next reporting period must be included in the report. In addition, it is recommended that information be included regarding the volume of sludge transferred to the Mount Forest WWTP from the Arthur WWTP during the year being reporting on. Another suggestion is that it would be helpful to include more information on specific dates and volumes for sludge hauled throughout the year from the Mount Forest WWTP for land application.
- * **All reports were submitted in accordance with Ministry recommendations.**

This question is in relation to proactively submitted quarterly reports, as requested by the Ministry.

BYPASSES AND OVERFLOWS

- * **Bypasses/overflows had not occurred at the sewage works during the inspection period.**

BIOSOLIDS MANAGEMENT

- * **The owner of the facility had written contingency plans or other management methods in place to be used in the event that the facility's sludge storage capacity was not sufficient.**
- * **The sewage biosolids intended for land application were sampled in accordance with regulatory requirements.**

The CofA for this facility does not contain sampling or quality requirements for sludge or biosolids generated on site. As land application appeared to be at NASM (Non-Agricultural Source Materials) sites during the inspection review period, sampling was to occur such that two samples are taken during the two-month period before the biosolids transfer, and one of these samples must be taken in the one-month period before the transfer date. Biosolids sampling analysis results were available for review and samples appeared to be routinely collected and analyzed as required.

The assessment of sampling and materials for agricultural landuse in accordance with the "Guideline for the Utilization of Biosolids and Other Wastes on Agricultural Lands", or, the regulations under the Nutrient Management Act, are assessed through the ministry's nutrient management program administered by the ministry's Operations Division.

BIOSOLIDS MANAGEMENT

- * **The quality of sewage biosolids intended for land application complied with regulatory requirements.**

The CofA for this facility does not contain sampling or quality requirements for sludge or biosolids generated on site. Biosolids sampling analysis results were available for review and samples appeared to be routinely collected and analyzed as required.

The assessment of sampling and materials for agricultural landuse in accordance with the "Guideline for the Utilization of Biosolids and Other Wastes on Agricultural Lands", or, the regulations under the Nutrient Management Act, are assessed through the ministry's nutrient management program administered by the ministry's Operations Division.

- * **Testing for biosolids required by legislation was conducted by accredited laboratories.**

- * **The facility received sludge or biosolids from another location.**

In the CofA, under the "Sludge Digestion and Storage" section, the sludge digestion and storage facility is listed as being able to receive, digest, and store sludge from both the Arthur WWTP and the Mount Forest WWTP. A total of 906.5 m³ of sludge was transferred from the Arthur WWTP to the Mount Forest WWTP in 2011, which had been identified in the Arthur WWTP 2011 Annual Report.

- * **The owner had maintained haulage records for the biosolids transferred from the sewage works.**

- * **Records confirm that biosolids were transferred to a Ministry approved facility for disposal or utilization.**

The approval of sites receiving materials for agricultural landuse in accordance with the "Guideline for the Utilization of Biosolids and Other Wastes on Agricultural Lands", or, the regulations under the Nutrient Management Act (NMA), are assessed through the ministry's nutrient management program administered by the ministry's Operations Division and the Ministry of Agriculture, Food and Rural Affairs.

- * **Records confirm that biosolids were transported for disposal or utilization by Ministry approved haulers.**

- * **Biosolids audit samples were collected during the inspection.**

Biosolids audit sampling was conducted on June 1, 2015. The analytical results of the audit sampling was not available at the time of issuance of this inspection report. The results will be provided to the system owner and operating authority upon their availability.

CERTIFICATION AND TRAINING

- * **The classification certificates of the subsystems were conspicuously displayed at the workplace or at premises from which the subsystem was managed.**

Two classification certificates are in place for this system:

Certificate #5204: Mount Forest Water Pollution Control Plant Class 2, issued September 7, 2007.

Certificate #459: Mount Forest Collection System, Class 2.

- * **Operator licences were displayed in a conspicuous location at the workplace or at the premises from which the subsystem was managed.**

CERTIFICATION AND TRAINING

- * **The overall responsible operator had been designated for the wastewater treatment and collection works.**

Designation documentation is available at the treatment plant and at the OCWA office.

- * **An adequately licensed operator was designated to act in place of the overall responsible operator when the overall responsible operator was unable to act.**
- * **All operators had the appropriate level of licences for the wastewater treatment and collection works.**
- * **Only licenced operators made adjustments to the treatment equipment.**
- * **Operators-in-charge were designated for the wastewater treatment plant and all associated collection works.**
Other than Operators-In-Training, all certified operators are considered to be designated as operator-in-charge (OIC) while on shift.
- * **The operator-in-charge ensured that records were maintained of all adjustments made to the processes within his or her responsibility.**

LOGBOOKS

- * **The logs and other record keeping mechanisms complied with the record keeping requirements.**
- * **Logs and other record keeping mechanisms were available for at least two (2) years.**

OPERATIONS MANUALS

- * **The operations and maintenance manuals met the requirements of the Environmental Compliance Approval.**

Regarding the community wastewater complaints aspect of operations and maintenance manual requirements, the Township has recently formalized a procedure to ensure proper documentation of receipt and response to these complaints.

- * **Operators and maintenance personnel had ready access to operations and maintenance manuals.**
- * **The operations and maintenance manuals contained up-to-date plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.**

CONTINGENCY/EMERGENCY PLANNING

- * **Spill containment was provided for the process chemicals and/or standby power generator fuel.**

CONTINGENCY/EMERGENCY PLANNING

- * The owner had provided security measures for the facility.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

1. All annual performance reports did not meet the submission and contents requirements of the Environmental Compliance Approval.

The Annual Reports were found to contain the majority of the information required by Condition 10(5) of the CofA, however there were the following exceptions:

- An objective exceedance for E.coli that occurred in April 2012 was not properly identified within the report, as the section on effluent quality included a statement that all objectives were met during the year.
- Loading information was not included in the reports for 2011, 2012, and 2013 as required. It is noted that loading information was included in the 2014 Annual Report, as part of ongoing improvements to the Annual Reports issued by OCWA.
- The pH objective range of 6.5 - 8.5 was not identified within the report.
- An outline of anticipated volumes of sludge to be generated in the next reporting period was not included.

Action(s) Required:

The owner of the system is required to ensure that future Annual Reports comply with the requirements of Section 10(5) of the CofA. The following points specifically identify certain areas for improvement:

- All objective exceedances must be clearly identified within the report.
- The pH objective range of 6.5 - 8.5 shall be included in the report, along with the identification of pH values measured during the reporting period to sufficiently compare to the objectives and limits for this parameter, as compliance/conformance with pH limits/objectives is based on grab sample results rather than monthly averages.
- An outline of anticipated volumes of sludge to be generated in the next reporting period must be included in the report. In addition, it is recommended that information be included regarding the volume of sludge transferred to the Mount Forest WWTP from the Arthur WWTP during the year being reporting on. Another suggestion is that it would be helpful to include more information on specific dates and volumes for sludge hauled throughout the year from the Mount Forest WWTP for land application.

SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

1. The sewage works effluent sample results did not meet the effluent objectives stated in the Environmental Compliance Approval.

For April 2012, the E.coli monthly Geometric Mean Density was 136 counts/100 mL, which is above the objective of 100 counts/100 mL. The objective was met for every other month of the inspection review period, and is not considered to be an ongoing issue.

Recommendation:

No recommendations at this time, as this is not considered to be an ongoing issue.

SIGNATURES

Inspected By:

Martha Weber

Signature: (Provincial Officer):



Reviewed & Approved By:

Lisa Williamson

Signature: (Supervisor):



Review & Approval Date:

16 JUL 2015

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.